

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING/CONSTRUCTION PERMIT

Permit No. 696TVP01
Application No. 696
Revision 1: January 11, 2008

Issue Date: July 7, 2004
Expiration Date: July 6, 2009

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **Pacific Energy Resources LTD**, for the operation of the **Osprey Platform**.

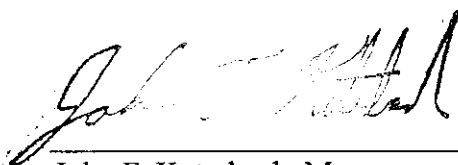
The Osprey Platform and the Kustatan Production Site are considered one facility, the West Forelands Facility, for purposes of determining applicability with the modification requirements of 18 AAC 50.300(h)(3).

This permit satisfies the obligation of the owner and operator to obtain an operating/construction permit as set out in AS 46.14.130(a) and (b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating/construction permit.

All facility-specific terms and conditions of Air Quality Control Construction Permit No 696CP03-Revision 1 have been incorporated into this Operating/Construction Permit.

This Operating/Construction Permit becomes effective August 6, 2004.



John F. Kuterbach, Manager

Air Permits Program

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List of Abbreviations Used in this Permit

AAC.....	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AS	Alaska Statutes
ASTM.....	American Society for Testing and Materials
BACT.....	Best Available Control Technology
BHp.....	Boiler Horsepower
C.F.R.....	Code of Federal Regulations
CO.....	Carbon Monoxide
dscf.....	Dry standard cubic foot
EPA.....	US Environmental Protection Agency
gr./dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)
GPH	gallons per hour
HAPs or HACs	Hazardous Air Pollutants or Hazardous Air Contaminants [<i>HAPs</i> or <i>HACs</i> as defined in AS 46.14.990(14)]
ID	Source Identification Number
kPa	kiloPascals
LAER.....	Lowest Achievable Emission Rate
MACT.....	Maximum Achievable Control Technology as defined in 40 C.F.R. 63.
MR&R	Monitoring, Recordkeeping, and Reporting
NESHAPs	Federal National Emission Standards for Hazardous Air Pollutants [<i>NESHAPS</i> as contained in 40 C.F.R. 61 and 63]
NO _x	Nitrogen Oxides
NSPS.....	Federal New Source Performance Standards [<i>NSPS</i> as contained in 40 C.F.R. 60]
O & M.....	Operation and Maintenance
O ₂	Oxygen
PM-10	Particulate Matter less than or equal to a nominal ten microns in diameter
ppm	Parts per million
ppmv, ppmvd.....	Parts per million by volume on a dry basis
psia.....	Pounds per Square Inch (absolute)
PSD.....	Prevention of Significant Deterioration
PTE	Potential to Emit
SIC.....	Standard Industrial Classification
SO ₂	Sulfur dioxide
TPH.....	Tons per hour
TPY.....	Tons per year
VOC.....	volatile organic compound [<i>VOC</i> as defined in 18 AAC 50.990(103)]
VOL.....	volatile organic liquid [<i>VOL</i> as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol%.....	volume percent
wt%.....	weight percent

Section 1. Identification

Names and Addresses

Permittee:	Pacific Energy Resources LTD 310 K Street, Suite 700 Anchorage, AK 99501
Facility Name:	Osprey Platform (West Forelands Facility)
Location:	60° 41' 46.3" North; 151° 40' 10.2" West
Physical Address:	Cook Inlet, Alaska
Owner:	Pacific Energy Alaska Operating LLC 310 K Street, Suite 700 Anchorage, AK 99501
Operator:	Pacific Energy Resources LTD
Permittee's Responsible Official	George Paspalof, Manager Alaska Operations
Designated Agent:	Corporation Service Company 9360 Glacier Highway, Suite 202 Juneau, AK 99801
Facility and Building Contact:	David Hall (907) 776-7108
Fee Contact:	Renee Varley 310 K Street, Suite 700 Anchorage, Alaska 99501 907-868-2165

Facility Process Description

SIC Code of the Facility:	1311, Crude Petroleum and Natural Gas Production
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[18 AAC 50.350(b)(1), 1/18/97]

Section 2. General Emission Information

[18 AAC 50.350(b)(1), 1/18/97]

Emissions of Regulated Air Contaminants:

Nitrogen Oxides, Carbon Monoxide, Sulfur Dioxide, Particulate Matter (PM-10), Volatile Organic Compounds, and various Hazardous Air Pollutants (HAPs)

Facility Classifications:

- (1) 18 AAC 50.300(b)(2) [containing a fuel-burning equipment with a rated capacity of $\geq 100\text{MMBtu/hr}$]

Operating Permit Classifications:

- (1) 18 AAC 50.325(b)(1) [$\geq 100\text{TPY}$ of a regulated air contaminant]
- (2) 18 AAC 50.325(b)(3) [source subject to NSPS/NESHAPs standards (40 CFR 60,61 & 63)]
- (3) 18 AAC 50.325(c) [facility described in 18AAC50.300(b)-(e) within AS 46.14.130(b)(4)]

Section 3. Source Inventory and Description

[18 AAC 50.350(d)(2), 1/18/97]

Sources listed in Table 1 have specific monitoring, recordkeeping, or reporting conditions in this permit. Source descriptions and ratings are given for identification purposes only.

Table 1 - Source Inventory

ID	Source Name	Source Description	Fuel Used	Rating/size	Installation Date
Boilers					
1	Drilling Boiler #1	Clayton ROG-100 Boiler	Fuel Gas/Diesel	100 bhp	1999
2	Drilling Boiler #2	Clayton ROG-100 Boiler	Fuel Gas/Diesel	100 bhp	1999
3	Camp Boiler #1	Parker GO 4032 Boiler	Fuel Gas/Diesel	3.3 MMBtu/hr	1999
4	Camp Boiler #2	Parker GO 4032 Boiler	Fuel Gas/Diesel	3.3 MMBtu/hr	1999
Diesel Engines					
5	Drilling Engine #1	Caterpillar D-399	Diesel	1,030 kW	1999
6	Drilling Engine #2	Caterpillar D-399	Diesel	1,030 kW	1999
7	Drilling Engine #3	Caterpillar D-399	Diesel	1,030 kW	1999
8	Drilling Engine #4	Caterpillar D-399	Diesel	1,030 kW	1999
9	Drilling Engine #5	Caterpillar D-399	Diesel	1,030 kW	1999
10	Standby Engine	Caterpillar D-379	Diesel	371 kW	1999
11	Camp Power Generator #1	Caterpillar 3412	Diesel	545 kW	1999
12	Camp Power Generator #2	Caterpillar 3412	Diesel	545 kW	1999
13	Firewater Pump Engine	Waukesha F-1197	Diesel	220 hp	1999
14	North Crane Engine	Caterpillar 3406	Diesel	500 hp	1999
15	South Crane Engine	Caterpillar 3406	Diesel	500 hp	1999
Miscellaneous Equipment					
16	Test Flare	Well Test Flare	Natural Gas	15 MMscf/day	1999

Note: Primary fuel for Source ID(s) 1 -- 4 (boilers) is fuel gas.

Section 4. Emission Fees

- 1. Assessable Emissions.** The Permittee shall pay to the Department an annual emission fee based on the facility's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air contaminant that the facility emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of:

- 1.1 the facility's assessable potential to emit of 134 TPY; or
- 1.2 the facility's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12-month period approved in writing by the Department, when demonstrated by
 - a. an enforceable test method described in 18 AAC 50.220;
 - b. material balance calculations;
 - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or
 - d. other methods and calculations approved by the Department.

[18 AAC 50.346(a)(1), 5/03/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

- 2. Assessable Emission Estimates.** Emission fees will be assessed as follows:

- 2.1 no later than March 31 of each year, the Permittee may submit an estimate of the facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or
- 2.2 if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in condition 1.1.

[18 AAC 50.346(a)(1), 5/03/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

Section 5. Source-Specific Requirements

Industrial Processes and Fuel-Burning Equipment

- 3. Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source ID(s) 1 – 16 listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:
- a. more than 20 percent for a total of more than three minutes in any one hour¹;
[18 AAC 50.055(a)(1), 1/18/97 and 18 AAC 50.350(d)(1)(C), 6/21/98]
[40 C.F.R. 52.70, 7/01/01]
 - b. more than 20 percent averaged over any six consecutive minutes².
[18 AAC 50.055(a)(1) & 50.346(c), 5/03/02 and 18 AAC 50.350(d)(1)(C), 6/21/98]
- 3.1 For Source ID(s) 1 - 4, use gas as primary fuel. Monitoring for these source(s) shall consist of a certification in each operating report required in condition 52 that each of these sources fired gas as the primary fuel. Otherwise, for any source that operates on liquid fuel for more than 6,000 hours (Source IDs 1 and 2), or 8,000 hours (Source IDs 3 and 4) in a calendar year monitor, record and report visible emissions in accordance with Section 6.
- 3.2 For Source ID(s) 5 – 10, as long as they do not exceed the fuel consumption limit in condition 10 monitoring shall consist of an annual compliance certification under condition 53 with the opacity standard. Otherwise, for any source that consumes more than 12,000 gallons in a calendar year monitor, record and report visible emissions in accordance with Section 6.
- 3.3 The Permittee shall monitor, record and report in accordance with Section 6 when the following thresholds are exceeded.
- a. For Source ID(s) 11 and 12, if individual unit fuel consumption exceeds 12,000 gallons in a calendar year.
 - b. For Source ID 13, if individual unit fuel consumption exceeds 6,000 gallons in a calendar year.
 - c. For Source ID(s) 14 and 15, if individual unit fuel consumption exceeds 9,000 gallons in a calendar year.

Otherwise monitoring shall consist of an annual compliance certification under condition 53 with the opacity standard.

¹ For purposes of this permit, the “more than three minutes in any one hour” criterion in this condition and condition 23.1 will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/03/02 is adopted by the U.S. EPA.

² The six-minute average standard is enforceable only by the state until 18 AAC 50.055(a)(1), dated May 3, 2002, is approved by EPA into the SIP at which time this standard becomes federally enforceable.

3.4 For Source ID 16, monitor, record and report in accordance with condition 21.

[18 AAC 50.350(g) - (i) & 50.346(c), 5/03/02]

4. **Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from Source ID(s) 1 – 16 listed in Table 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.346(c), 5/03/02; 18 AAC 50.055(b)(1), 1/18/97 and 18 AAC 50.350(d)(1)(C), 6/21/98]

4.1 For Source ID(s) 1 - 4, use gas as primary fuel. Monitoring for these source(s) shall consist of a certification in each operating report required in condition 52 that each of these sources fired gas as the primary fuel. Otherwise, for any source that operates on liquid fuel for more than 6,000 hours (Source IDs 1 and 2), or 8,000 hours (Source IDs 3 and 4) in a calendar year monitor, record and report particulate matter emissions in accordance with Section 6.

4.2 For Source ID(s) 5 – 10, as long as they do not exceed the fuel consumption limit in condition 10 monitoring shall consist of an annual compliance certification under condition 53 with the particulate matter standard. Otherwise, for any source that consumes more than 12,000 gallons in a calendar year monitor, record and report particulate matter emissions in accordance with Section 6.

4.3 The Permittee shall monitor, record and report in accordance with Section 6 when the following thresholds are exceeded.

- a. For Source ID(s) 11 and 12, if individual unit fuel consumption exceeds 12,000 gallons in a calendar year.
- b. For Source ID 13, if individual unit fuel consumption exceeds 6,000 gallons in a calendar year.
- c. For Source ID(s) 14 and 15, if individual unit fuel consumption exceeds 9,000 gallons in a calendar year.

Otherwise monitoring shall consist of an annual compliance certification under condition 53 with the particulate matter standard.

4.4 For Source ID 16, the Permittee must annually certify compliance under condition 53 with the particulate matter standard.

[18 AAC 50.346(c) & 50.350(g) – (i), 5/03/02]

5. **Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from 1 - 16 to exceed 500 ppm averaged over three hours.

[18 AAC 50.346(c), 5/03/02; 18 AAC 50.055(c), 1/18/97; and 18 AAC 50.350(d)(1)(C), 6/21/98]

For fuel oil³, Source ID(s) 5 - 15

- 5.1 The Permittee shall do one of the following for each shipment of fuel:
- a. If the fuel grade requires a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount; or
 - b. If the fuel grade does not require a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount and
 - (i) test the fuel for sulfur content; or
 - (ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.
- 5.2 Fuel testing under condition 5.1 must follow an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the Department.
- 5.3 If a load of fuel contains greater than 0.75 percent sulfur by weight, the Permittee shall calculate SO₂ emissions in ppm using either Section 14 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).
- 5.4 The Permittee shall report as follows:
- a. If SO₂ emissions calculated under condition 5.3 exceed 500 ppm, the Permittee shall report under condition 50. When reporting under this condition, include the calculation under Section 14.
 - b. The Permittee shall include in the report required by condition 52
 - (i) a list of the fuel grades received at the facility during the reporting period;
 - (ii) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur of each shipment; and
 - (iii) for fuel with a sulfur content greater than 0.75 percent, the calculated SO₂ emissions in ppm.

[18 AAC 50.346(c) & 350(g) - (i), 5/03/02]

For fuel gas, Source ID(s) 1 – 4, and 16

- 5.5 Monitoring – The Permittee shall **either**
- a. obtain a semiannual statement from the fuel supplier of the fuel gas H₂S concentration in ppm; **or**

³ Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil, as defined in 40 C.F.R. 60.42b, effective 7/01/01.

- b. analyze a representative sample of the fuel semiannually to determine the sulfur content using 40 C.F.R. 60, Appendix A, Method 11, or Gas Producers Association (GPA) Method 2377-86 (drager tube or equivalent).
[18 AAC 50.350(g), 1/18/97]
- 5.6 Recordkeeping - Keep records of the semiannual statement from the fuel supplier or the sulfur content analysis required under conditions 5.5a or 5.5b.
[18 AAC 50.350(h), 5/03/02]
- 5.7 Reporting -
 - a. Report as excess emissions, in accordance with condition 50, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of condition 5.
 - b. Include copies of the records required by condition 5.6 with the facility operating report required by condition 52.
[18 AAC 50.350(i), 1/18/97]

Hours of Operation Monitoring

- 6. The Permittee shall monitor, record and report the hours of operation as follows.
[18 AAC 50.335(j), 5/3/02]
- 6.1 For Source ID(s) 1 – 4, monitor and record the monthly and year-to-date total operating time for each unit separately for fuel gas and liquid fuel firing.
- 6.2 Report using the facility operating report under condition 52, the data recorded under conditions 6.1.
[18 AAC 50.350(g) – (i), 5/3/02]

Source Identification

- 7. The Permittee shall provide clear legible identification on each emission source to indicate the unit number. Place an identifier of no less than four inches in height on a conspicuous location of each piece of equipment listed in Table 1 located on the platform. Monitoring shall consist of an annual compliance certification that the equipment has been identified.
[Construction Permit No. 696CP03, Revision 1, 1/14/04]
[18 AAC 50.350(g) – (i), 5/3/02]

Fuel Sulfur Content Limits

- 8. The Permittee shall limit the sulfur content in fuels used in Source ID(s) 1 – 16 as indicated in Table 2 below. Limits are not to be exceeded.
[Construction Permit No. 696CP03, Revision 1, 1/14/04]
- 8.1 Monitor, record and report in accordance with condition 5.
- 8.2 Notify the Department in accordance with condition 50 whenever a source exceeds a fuel sulfur limit in Table 2 below.

Table 2 – Fuel Sulfur Limits

Source ID	Source Description	Limit for Liquid Fuel	Limit for Fuel Gas
1 – 4	Boilers	0.25% by weight	25 ppm
5 – 15	Engines	0.25% by weight	None
16	Flare	None	25 ppm

Operational Requirements

9. The Permittee shall limit emissions from Source ID(s) 5 – 12 by pairing the engines with electric generators as indicated in Table 3 below.

[Construction Permit No. 696CP03, Revision 1, 1/14/04]

Table 3 – Engine-Generator Sets

Source ID	Source Description	Maximum Generator Capacity
5 - 9	Caterpillar D-399	825 kW
10	Caterpillar D-379	350 kW
11 & 12	Caterpillar 3412	545 kW

- 9.1 If the generator capacity listed in Table 3 exceeds the listed value, the generator shall be limited to the maximum capacity indicated by either equivalent fuel use (gallons/hr) or power output (kW) controls as approved by the Department and certified by the vendor or appropriate 3rd party.

Operation Requirements and Fuel Consumption Limits

10. The Permittee shall limit NO_x emissions indirectly through operational and fuel consumption requirements as indicated in Table 4 below. Limits are not to be exceeded.

[Construction Permit No. 696CP03, Revision 1, 1/14/04]

- 10.1 Monitor and record monthly fuel consumption for each of Source ID(s) 5 - 16.
- 10.2 Report using the facility operating report required by condition 52 the monthly and consecutive 12-month summation of fuel consumption for Source ID(s) 5 – 16 for each month of the reporting period.
- 10.3 Notify the Department in accordance with condition 50 whenever a source violates an operational requirement or exceeds a fuel limit in Table 4.

[18 AAC 50.350(g) – (i), 5/3/02]

Table 4 – Operational Requirements and Fuel Consumption Limits

Source ID	Source Description	Operational Requirement	Fuel Consumption Limits (gallons or MMscf (for flare) per 12-month period)
1 – 4	Boilers	Liquid fuels burned in the boilers must be either No. 1 or No. 2 fuel oil.	None
5 – 10	Caterpillar Engines	Fuels burned in the engines must be either No. 1 or No. 2 fuel oil.	7,500 (combined)
11 & 12	Caterpillar Engines		25,000 (combined)
13	Firewater Pump Engine		500
14 & 15	Caterpillar Engines		70,000 (combined)
16	Flare	Fuels burned must be either pilot assisted and purge gases or flared gases.	260

Alternate Fuel Monitoring Methods

11. Whenever fuel metering/monitoring is out of service or meter accuracy is out of the bounds specified in condition 11.1 the Permittee shall, for Source ID(s) 5 – 16, record the hours of operation. Use the hours of operation recorded and the fuel consumption rates specified in Table 5 below to estimate the fuel usage. Count the estimated fuel consumption calculated towards the fuel limits in condition 10. If fuel is metered as a group, record the hours of operation for each source whose fuel is monitored by the out-of-service meter.

- 11.1 Document liquid fuel flow meters and totalizers to be accurate to $\pm 5\%$. Document the monitor for measuring the volume of gas flared by Source ID 16 to be accurate to $\pm 10\%$. Vendor specifications may be used to document system accuracy. Monitoring shall consist of an annual compliance certification that the meters meet the specified accuracy standards.

Table 5 – Assumed Fuel Consumption Rates

Source ID	Source Description	Assumed Fuel Consumption Rate
5 – 9	Caterpillar D-399 Engines	75.0 gallons/hr

10	Caterpillar D-379 Engine	37.2 gallons/hr
11 and 12	Caterpillar 3412 Engines	50.0 gallons/hr
13	Waukesha F-1197 Engine	11.7 gallons/hr
14 and 15	Caterpillar 3406 Engines	31.0 gallons/hr
16	Test Flare	0.625 MMscf/hr

Section 6. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

Dual-Fired (Source IDs 1 – 4 when firing liquid) and Liquid-Fired (Source IDs 5 - 15) Sources

- 12. Visible Emissions Monitoring.** The Permittee shall observe the exhaust of Source ID(s) 1 - 15 for visible emissions as required under conditions 3.1, 3.2, and 3.3 using either the Method 9 Plan under condition 12.1 or the Smoke/No-Smoke Plan under condition 12.2. The Permittee may change visible-emissions plans for a source at any time unless prohibited from doing so by condition 12.3.

[18 AAC 50.350(g), 1/18/97 & 50.346(c), 5/03/02]

12.1 Method 9 Plan. For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

- a. First Method 9 Observation. Observe exhaust for 18 minutes within six months after the issue date of this permit or within 14 calendar days after changing from the Smoke/No-Smoke Plan of condition 12.2, whichever is later.
- b. Monthly Method 9 Observations. After the first Method 9 observation, perform 18-minute observations at least once in each calendar month that a source operates.
- c. Semiannual Method 9 Observations. After observing emissions for three consecutive operating months under condition 12.1b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, observe emissions at least semiannually for 18 minutes.

Semiannual observations must be taken between four and seven months after the previous set of observations.

- d. Annual Method 9 Observations. After at least two semiannual 18-minute observations, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, observe emissions at least annually.

Annual observations must be taken between 10 and 13 months after the previous observations and must include at least three 18-minute sets of observations.

- e. Increased Method 9 Frequency. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that source to at least monthly intervals, until the criteria in condition 12.1c for semiannual monitoring are met.

12.2 Smoke/No Smoke Plan. Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

- a. Initial Monitoring Frequency. Observe the exhaust during each calendar day that a source operates.
- b. Reduced Monitoring Frequency. After the source has been observed on 30 consecutive operating days, if the source operated without visible smoke in the exhaust for those 30 days, then observe emissions at least once in every calendar month that a source operates.
- c. Smoke Observed. If smoke is observed, either begin the Method 9 Plan of condition 12.1 or perform the corrective action required under condition 12.3.

12.3 Corrective Actions Based on Smoke/No Smoke Observations. If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of condition 12.2, then the Permittee shall either follow the Method 9 plan of condition 12.1 or

- a. initiate actions to eliminate smoke from the source within 24 hours of the observation;
- b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and
- c. after completing the actions required under condition 12.3a,
 - (i) take Smoke/No Smoke observations in accordance with condition 12.2
 - (A) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and
 - (B) continue as described in condition 12.2b; or
 - (ii) if the actions taken under condition 12.3a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of condition 12.3c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under condition 12.2a.

13. Visible Emissions Recordkeeping. The Permittee shall keep records as follows:

[18 AAC 50.350(h) & 50.346(c), 5/03/02]

13.1 If using the Method 9 Plan of condition 12.1

- a. the observer shall record

-
- (i) the name of the facility, emissions source and location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet in Section 13;
 - (ii) the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;
 - (iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
 - (iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation in Section 13, and
 - (v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;
- b. to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;
 - c. calculate and record the highest 18-consecutive-minute averages observed.
- 13.2 If using the Smoke/No Smoke Plan of condition 12.2, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:
- a. the date and time of the observation;
 - b. from Table 1, the ID of the source observed;
 - c. whether visible emissions are present or absent in the exhaust;
 - d. a description of the background to the exhaust during the observation;
 - e. if the source starts operation on the day of the observation, the startup time of the source;
 - f. name and title of the person making the observation; and
 - g. operating rate (load or fuel consumption rate).

14. Visible Emissions Reporting. The Permittee shall report visible emissions as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/03/02]

14.1 include in each facility operating report under condition 52

- a. which visible-emissions plan of condition 12 was used for each source; if more than one plan was used, give the time periods covered by each plan;
- b. for each source under the Method 9 Plan,
 - (i) copies of the observation results (i.e. opacity observations) for each source that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department; and
 - (ii) a summary to include:
 - (A) number of days observations were made;
 - (B) highest six-minute average observed; and
 - (C) dates when one or more observed six-minute averages were greater than 20 percent;
- c. for each source under the Smoke/No Smoke Plan, the number of days that Smoke/No Smoke observations were made and which days, if any, that smoke was observed; and
- d. a summary of any monitoring or recordkeeping required under conditions 12 and 13 that was not done;

14.2 report under condition 50:

- a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and
- b. if any monitoring under condition 12 was not performed when required, report within three days of the date the monitoring was required.

15. Particulate Matter Monitoring for Diesel Engines. The Permittee shall conduct source tests on diesel engines and liquid-fired turbines, Source ID(s) 5 - 15, to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with this condition 15.

[18 AAC 50.350(g), 1/18/97 & 50.346(c), 5/03/02]

15.1 Within six months of exceeding the criteria of condition 15.2a or 15.2b, either

- a. conduct a PM source test according to requirements set out in Section 9; or

- b. make repairs so that emissions no longer exceed the criteria of condition 15.2; to show that emissions are below those criteria, observe emissions as described in condition 12.1 under load conditions comparable to those when the criteria were exceeded.

15.2 Conduct the test according to condition 15.1 if

- a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or
- b. for a source with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.

15.3 During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.

15.4 The automatic PM source test requirement in conditions 15.1 and 15.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

16. Particulate Matter Recordkeeping for Diesel Engines. Within 180 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameter(s) of Source ID(s) 5 – 15. Report the stack diameter(s) in the next operating report under condition 52.

[18 AAC 50.350(h) & 50.346(c), 5/03/02]

17. Particulate Matter Reporting for Diesel Engines. The Permittee shall report as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/03/02]

17.1 report under condition 50

- a. the results of any PM source test that exceeds the PM emissions limit; or
- b. if one of the criteria of condition 15.2 was exceeded and the Permittee did not comply with either condition 15.1a or 15.1b, this must be reported by the day following the day compliance with condition 15.1 was required;

17.2 report observations in excess of the threshold of condition 15.2b within 30 days of the end of the month in which the observations occur;

17.3 in each facility operating report under condition 52, include

- a. the dates, Source ID(s), and results when an observed 18-minute average was greater than an applicable threshold in condition 15.2;

- b. a summary of the results of any PM testing under condition 15; and
- c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of condition 15.2, if they were not already submitted.

For Liquid-Fired Boilers and Heaters

18. Particulate Matter Monitoring. The Permittee shall conduct source tests on Source ID(s) 1 - 4 to determine the concentration of PM in the exhaust of Source ID(s) 1 - 4 as follows:

- 18.1 Conduct a PM source test according to the requirements set out in Section 9 no later than 90 calendar days after any time corrective maintenance fails to eliminate visible emissions greater than the 20 percent opacity threshold for two or more 18-minute observations in a consecutive six-month period.
- 18.2 During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run.
- 18.3 The PM source test requirement in condition 18.1 is waived for an emission unit if:
 - a. a PM source test during the most recent semiannual reporting period on that unit shows compliance with the PM standard since permit issuance, or
 - b. if a follow-up visible emission observation conducted using Method-9 during the 90 days shows that the excess visible emissions described in condition 12.1e no longer occur.

[18 AAC 50.350(g), 1/18/97]

19. Particulate Matter Recordkeeping. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under conditions 18.1 and 18.2.

[18 AAC 50.350(h), 5/03/02]

20. Particulate Matter Reporting. The Permittee shall report as follows:

- 20.1 In each facility operating report required by condition 52, include
 - a. the dates, Source ID(s), and results when an 18-minute opacity observation was greater than the applicable threshold criterion in 12.1e.
 - b. a summary of the results of any PM testing and visible emissions observations conducted under conditions 18.1 and 18.2.
- 20.2 Report as excess emissions, in accordance with condition 50, any time the results of a source test for PM exceeds the PM emission limit stated in condition 4.

[18 AAC 50.350(i), 1/18/97]

Flares, Source ID 16

21. Visible Emissions Monitoring, Recordkeeping, and Reporting. The Permittee shall observe the first six daylight flare events⁴ occurring during the life of this permit⁵.

21.1 Monitor flare events using Method-9.

21.2 Record the following information for observed events:

- a. the flare(s) Source ID number;
- b. results of the Method-9 observations;
- c. reason(s) for flaring;
- d. date, beginning and ending time of event; and
- e. volume of gas flared.

21.3 Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. Until monitoring has been completed on the six flare events described in this condition, the Permittee shall either monitor each qualifying flare event or include in the next report required by condition 52 an explanation of the reason the event was not monitored.

21.4 Attach copies of the records required by condition 21.2 with the facility operating report required by condition 52.

21.5 Report under condition 50 whenever the opacity standard in condition 3 is exceeded.

[18 AAC 50.350(g) – (i), 5/03/02]

⁴ For purposes of this permit, a “flare event” is flaring of gas for greater than one hour as a result of scheduled lease operations, i.e. maintenance or well testing activities. It does not include non-scheduled lease operations, i.e. process upsets, emergency flaring, or de minimis venting of gas incidental to normal operations.

⁵ Flare events monitored within 12-months prior to permit effective date may count towards the six-event total.

Section 7. *Insignificant Sources*

This section contains the requirements that the Permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant sources at the facility. This section also specifies the testing, monitoring, recordkeeping, and reporting for insignificant sources that the Department finds necessary to ensure compliance with the applicable requirements. Insignificant sources are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.290 does not apply to these sources.

- 22.** For sources at the facility that are insignificant as defined in 18 AAC 50.335(q)-(v) that are not listed in this permit, the following apply:

22.1 The Permittee shall submit the compliance certifications of condition 53 based on reasonable inquiry;

22.2 The Permittee shall comply with the requirements of condition 33;

22.3 The Permittee shall report in the operating report required by condition 52 if a source is insignificant because of actual emissions less than the thresholds of 18 AAC 50.335(r) and actual emissions become greater than any of those thresholds;

22.4 No other monitoring, recordkeeping or reporting is required.

[18 AAC 50.346(b)(1), 5/03/02]

- 23.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by any of the following:

23.1 more than 20 percent for a total of more than three minutes in any one hour⁶;

[18 AAC 50.050(a)(2) & 50.055(a)(1), 1/18/97]
[40 C.F.R. 52.70, 7/01/01]

23.2 more than 20 percent averaged over any six consecutive minutes⁷.

[18 AAC 50.050(a) & 50.055(a)(1), 5/03/02]

- 24.** The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1), 1/18/97]

- 25.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

⁶ See Footnote 1.

⁷ See Footnote 2.

Section 8. *Generally Applicable Requirements*

- 26. Asbestos NESHAP.** The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(3), 8/15/02 & 50.350(d)(1)(A), 1/18/97]
[40 C.F.R. 61, Subparts A & M, and Appendix A, 7/01/01]

- 27. Refrigerant Recycling and Disposal.** The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F.

[18 AAC 50.040(d), 8/15/02 & 50.350(d)(1)(A), 1/18/97]
[40 C.F.R. 82, Subpart F, 7/01/01]

- 28. Good Air Pollution Control Practice.** The Permittee shall do the following for Source ID(s) 1 - 16:

- a. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- b. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
- c. keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030 & 50.346(b)(2), 5/03/02 & 18 AAC 50.350(f)(2) & (3), 1/18/97]

- 29. Dilution.** The Permittee shall not dilute emissions with air to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

- 30. Reasonable Precautions to Prevent Fugitive Dust.** The Permittee shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air when causing or permitting bulk materials to be handled, transported, or stored, or when engaging in an industrial activity or construction project. Monitoring shall consist of an annual certification that reasonable precautions were taken.

[18 AAC 50.346(c), 5/03/02; 18 AAC 50.045(d) & 50.350(g), 1/18/97 & 18 AAC 50.040(e), 8/15/02]

- 31. Stack Injection.** The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the Department.

[18 AAC 50.055(g), 1/18/97]

- 32. Open Burning.** The Permittee shall conduct any open burning at the facility in accordance with the requirements of 18 AAC 50.065. Monitoring shall consist of an annual certification that any open burning complied with 18 AAC 50.065.

[18 AAC 50.040(e), 7/21/01, 18 AAC 50.065, 7/21/01, 18 AAC 50.350(d)(1), 1/18/97]

33. Air Pollution Prohibited. No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.346(a)(2), 5/03/02; 18 AAC 50.110, 5/26/72; 18 AAC 50.040(e), 8/15/02]

33.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 50.

33.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 33.

33.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

- a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the facility have caused or are causing a violation of condition 33; or
- b. the Department notifies the Permittee that it has found a violation of condition 33.

33.4 The Permittee shall keep records of

- a. the date, time, and nature of all emissions complaints received;
- b. the name of the person or persons that complained, if known;
- c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of condition 33; and
- d. any corrective actions taken or planned for complaints attributable to emissions from the facility.

33.5 With each facility operating report under condition 52, the Permittee shall include a brief summary report which must include

- a. the number of complaints received;
- b. the number of times the Permittee or the Department found corrective action necessary;
- c. the number of times action was taken on a complaint within 24 hours; and
- d. the status of corrective actions the Permittee or Department found necessary, that were not taken within 24 hours.

33.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

[18 AAC 50.346(a)(2) & 50.350(g) - (i), 5/03/02]

34. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235, causes emissions in excess of a technology-based emission standard⁸, the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under condition 50 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under condition 50.

[18 AAC 50.235(a) & 50.350(f)(3), 1/18/97]

35. Permit Renewal. To renew this permit, the Permittee shall submit an application under 18 AAC 50.335 no sooner than **January 5, 2008** and no later than **January 5, 2009**.

[18 AAC 50.335(a), 1/18/97]

⁸ *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Section 9. General Source Testing and Monitoring Requirements

- 36. Requested Source Tests.** In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97 & 18 AAC 50.345(a) & (k), 5/03/02]

- 37. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b) & 50.350(g), 1/18/97]

37.1 at a point or points that characterize the actual discharge into the ambient air; and

37.2 at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.

- 38. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

38.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.220(c)(1)(A) & 50.350(g), 1/18/97 & 18 AAC 50.040(a), 8/15/02]
[40 C.F.R. 60, 7/01/01]

38.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 8/15/02; 50.220(c)(1)(B) & 50.350(g), 1/18/97]
[40 C.F.R. 61, 7/01/01]

38.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 6/01/02; 18 AAC 50.220(c)(1)(C) & 50.350(g), 1/18/97]
[40 C.F.R. 63, 4/05/02]

38.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9 and may use the form in Section 13 to record data.

[18 AAC 50.030, 5/03/02, 18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

38.5 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(4), 8/15/02 & 18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]
[40 C.F.R. 60, Appendix A, 7/01/01]

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- 38.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.
[18 AAC 50.035(b)(2), 7/02/00; 18 AAC 50.220(c)(1)(F) & 50.350(g), 1/18/97]
[40 C.F.R. 51, Appendix M, 7/01/99]
- 38.7 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.
[18 AAC 50.040(c)(19), 6/01/02 & 18 AAC 50.220(c)(2) & 50.350(g), 1/18/97]
[40 C.F.R. 63, Appendix A, Method 301, 4/05/02]
39. **Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).
[18 AAC 50.220(c)(3), 18 AAC 50.350(g), 1/18/97 & 18 AAC 50.990(88), 5/03/02]
40. **Test Exemption.** The Permittee is not required to comply with conditions 42, 43 and 44 when the exhaust is observed for visible emissions by Method 9 Plan (condition 12.1) or Smoke/No Smoke Plan (condition 12.2)
[18 AAC 50.345(a), 5/03/02]
41. **Test Deadline Extension.** The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.
[18 AAC 50.345(a) & (l), 5/03/02]
42. **Test Plans.** Except as provided in condition 40, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the source will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under condition 36 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.
[18 AAC 50.345(a) & (m), 5/03/02]
43. **Test Notification.** Except as provided in condition 40, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.
[18 AAC 50.345(a) & (n), 5/03/02]

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- 44. Test Reports.** Except as provided in condition 40, within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in condition 46. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

[18 AAC 50.345(a) & (o), 5/03/02]

- 45. Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in conditions 4 and 24, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f) & 50.350(g), 1/18/97]

Section 10. General Recordkeeping, Reporting, and Compliance Certification Requirements

- 46. Certification.** The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted facility following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.205 and 50.350(b)(3) & (j), 1/18/97; and 18 AAC 50.345(a) & (j), 5/03/02]

- 47. Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send two copies of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with condition 46.

[18 AAC 50.350(i), 1/18/97]

- 48. Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200 & 50.350(b)(3), 1/18/97; and 18 AAC 50.345(a) & (i) & 50.350(g) – (i), 5/03/02]

- 49. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.350(h), 5/03/02]

[40 C.F.R. 60.7(f), Subpart A, 7/01/01]

49.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

49.2 records of all monitoring required by this permit, and information about the monitoring including:

- a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
- b. sampling dates and times of sampling or measurements;
- c. the operating conditions that existed at the time of sampling or measurement;

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- d. the date analyses were performed;
 - e. the location where samples were taken;
 - f. the company or entity that performed the sampling and analyses;
 - g. the analytical techniques or methods used in the analyses; and
 - h. the results of the analyses.

50. Excess Emissions and Permit Deviation Reports.

50.1 Except as provided in condition 33, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report
 - (i) emissions that present a potential threat to human health or safety; and
 - (ii) excess emissions that the Permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations
 - (i) within 30 days of the end of the month in which the emissions or deviation occurs or is discovered, except as provided in condition 50.1c(ii);
 - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under condition 50.1c(i); and

50.2 When reporting excess emissions, the Permittee must report using either the Department's on-line form, which can be found at <http://www.state.ak.us/dec/air/ap/docs/eeform.pdf>, or if the Permittee prefers, the form contained in Section 15 of this permit. The Permittee must provide all information called for by the form that is used.

50.3 When reporting a permit deviation, the Permittee must report using either the Department's on-line form, which can be found at <http://www.state.ak.us/dec/air/ap/docs/eeform.pdf>, or if the Permittee prefers, the form contained in Section 15 of this permit. The Permittee must provide all information called for by the form.

50.4 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), & 50.350(i), 1/18/97; and 18 AAC 50.346(a)(3), 5/03/02]

51. NSPS and NESHAP Reports. The Permittee shall:

51.1 attach to the facility operating report required by condition 52, copies of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10 as required, and

51.2 upon request by the Department, notify and provide a written copy of any EPA-granted waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

[18 AAC 50.040, 8/15/02 & 18 AAC 350(i)(2), 1/18/97]
[40 C.F.R. 60 & 61, 7/01/01]

52. Operating Reports. During the life of this permit, the Permittee shall submit to the Department one original and one copy of an operating report by April 30 for the period January 1 to March 31, by July 30 for the period April 1 to June 30, by October 30 for the period July 1 to September 30, and by February 14 for the period October 1 to December 31 of the previous year.

52.1 The operating report must include all information required to be in operating reports by other conditions of this permit.

52.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 52.1, either

a. The Permittee shall identify

- (i) the date of the deviation;
- (ii) the equipment involved;
- (iii) the permit condition affected;
- (iv) a description of the excess emissions or permit deviation; and
- (v) any corrective action or preventive measures taken and the date of such actions; or

b. When excess emissions or permit deviations have already been reported under condition 50 the Permittee may cite the date or dates of those reports.

52.3 The operating report must include a listing of emissions monitored under conditions 12.1e and 12.2c, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report

- a. the date of the emissions;
- b. the equipment involved;
- c. the permit condition affected; and
- d. the monitoring result which triggered the additional monitoring.

[18 AAC 50.346(b)(3), 5/03/02; 18 AAC 50.350(d)(4), 6/21/98 and 18 AAC 50.350(f)(3) & (i), 1/18/97]

53. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department one original and one copy of an annual compliance certification report as follows:

[18 AAC 50.350(j), 1/18/97]

53.1 For each permit term and condition set forth in Section 4 through Section 10, including terms and conditions for monitoring, reporting, and recordkeeping:

[18 AAC 50.350(d)(4), 6/21/98]

- a. certify the compliance status over the preceding calendar year consistent with the monitoring required by this permit;
- b. state whether compliance is intermittent or continuous;
- c. briefly describe each method used to determine the compliance status; and
- d. notarize the responsible official's signature.

[18 AAC 50.205, 1/18/97 & 50.345(a) & (j), 5/03/02]

53.2 In addition, submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(j)(3), 1/18/97]

Section 11. *Standard Conditions Not Otherwise Included in the Permit*

- 54.** The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
- 54.1 an enforcement action;
 - 54.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
 - 54.3 denial of an operating-permit renewal application.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (c), 5/03/02]
- 55.** It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (d), 5/03/02]
- 56.** Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (e), 5/03/02]
- 57.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 57.1 included and specifically identified in the permit; or
 - 57.2 determined in writing in the permit to be inapplicable.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (b), 5/03/02]
- 58.** The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (f), 5/03/02]
- 59.** The permit does not convey any property rights of any sort, nor any exclusive privilege.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (g), 5/03/02]
- 60.** The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to
- 60.1 enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
 - 60.2 have access to and copy any records required by the permit;

-
- 60.3 inspect any facility, equipment, practices, or operations regulated by or referenced in the permit; and
- 60.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (h), 5/03/02]

Section 12. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the facility application, this section of the permit contains the requirements determined by the Department not to be applicable to the Osprey Platform.

61. Table 6 identifies the sources that are not subject to the specified requirements at the time of permit issuance. If any of the requirements listed in Table 6 becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

Table 6 - Permit Shields Granted.

Non-Applicable Requirements	Reason for non-applicability
Facility-Wide	
40 CFR 60, NSPS—All subparts except Kb	Not an affected facility, operation or industry, or no affected sources within the facility.
40 CFR 60, NSPS—All portions of Subpart Kb except 60.116b(b)	Affected facility (Source ID 16) stores an organic liquid with a vapor pressure less than 3.5 kPa.
40 CFR 60, Subpart A, General Provisions	A facility must be subject to a specific subpart of 40 CFR 60 to be subject to Subpart A. Regarding Subpart Kb, affected facilities subject solely to the recordkeeping requirements under 60.116b are exempt from Subpart A.
40 CFR 61, NESHAPs—All subparts except M	Not an affected facility, operation or industry.
40 CFR 61, NESHAPs—All portions of Subpart M except 61.145, 61.150, and 61.152	Facility is not or does not engage in activities regulated by other sections of Subpart M.
40 CFR 63, NESHAPs—Subparts F, G, L, M, N, O, Q, R, T, U, W, X, Y, CC, DD, II, JJ, KK, and EE	Not an affected facility, operation or industry, or no affected sources within the facility.
40 CFR 63, NESHAPs—Subparts A and H	Per 40 CFR 63.1(a)(4), a facility must be subject to a specific subpart of 40 CFR 63 to be subject to these subparts.
40 CFR 63, NESHAPs—Subparts HH and HHH	Facility is not a major source of HAPs as defined in 40 CFR 63.760(a).
40 CFR 82, Protection of Stratospheric Ozone, Subpart A Production and Consumption Controls	Facility does not produce, transform, destroy, import or export Class I or Group I or II substances or products.
40 CFR 82.30, Subpart B—Servicing of Motor Vehicle Air Conditioners	Facility does not service motor vehicle air conditioners
40 CFR 82.60, Subpart C—Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Facility is not a manufacturer or distributor of Class I and II products or substances.
40 CFR 82.80, Subpart D—Federal Procurement	Subpart applies only to Federal departments, agencies, and instrumentalities.
40 CFR 82.100, Subpart E—The Labeling of Products Using Ozone-Depleting Substances.	Facility is not a manufacturer or distributor of Class I and II products or substances.
40 CFR 82.158, Subpart F—Recycling and	Facility does not manufacture or import recovery and

Non-Applicable Requirements	Reason for non-applicability
Emissions Reduction.	recycling equipment.
40 CFR 82.160, Approved Equipment Testing Organizations	Facility does not contract equipment testing organizations to certify recovery and recycling equipment.
40 CFR 82.164, Reclaimer Certification	Facility does not sell reclaimed refrigerant.
40 CFR 82, Subpart F, Appendix C--Method for Testing Recovery Devices for Use With Small Appliances	Facility is not a third party entity that certifies recovery equipment.
40 CFR 82, Subpart F, Appendix D--Standards for Becoming a Certifying Program for Technicians	Facility does not have a technician certification program.
40 CFR 82.174(a), Subpart G--Significant New Alternatives Policy Program: Prohibitions	Facility does not manufacture substitute chemicals or products for ozone- depleting compounds.
40 CFR 82.270(a), Subpart H--Halon Emissions Reduction	Facility does not manufacture halon.

Section 13. Visible Emissions Forms

Visible Emissions Field Data Sheet

Certified Observer: _____

Company &
Facility: _____

Location: _____

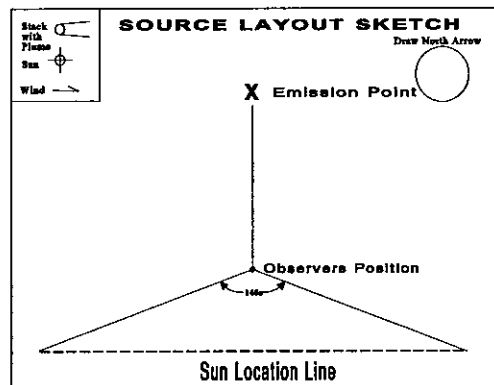
Test No.: _____ Date: _____

Source: _____

Production Rate/Operating Rate: _____

Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Page ____ of ____

Company & Facility _____ Certified Observer _____

Test Number _____ Clock time _____

[illegible]

Additional information:

Observer Signature and Date

Certified By and Date

Duration of Observation Period (minutes) _____ Duration Required by Permit (minutes) _____
 Number of Observations _____ Highest Six -Minute Average Opacity (%) _____
 Number of Observations exceeding 20 % _____
 In compliance with three-minute aggregate opacity limit? (Yes or No) _____
 In compliance with six-minute opacity limit? (Yes or No) _____

Set Number	Time Start—End	Opacity	
		Sum	Average

Section 14. **SO₂ Material Balance Calculation**

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO₂ using the following equations:

$$A = 31,200 \times [\text{wt}\%S_{\text{fuel}}] = 31,200 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$B = 0.148 \times [\text{wt}\%S_{\text{fuel}}] = 0.148 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$C = 0.396 \times [\text{wt}\%C_{\text{fuel}}] = 0.396 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$D = 0.933 \times [\text{wt}\%H_{\text{fuel}}] = 0.933 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$E = B + C + D = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$F = 20.9 - [\text{vol}\%_{\text{dry}}O_{2, \text{exhaust}}] = 20.9 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$G = [\text{vol}\%_{\text{dry}}O_{2, \text{exhaust}}] \div F = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$H = 1 + G = 1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$I = E \times H = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\text{SO}_2 \text{ concentration} = A \div I = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ ppm}$$

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition 5.1. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%_{dry}O_{2, exhaust}) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt%S_{fuel} = 1.0%, then enter 1.0 into the equations, not 0.01, and if vol%_{dry}O_{2, exhaust} = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c), 5/03/02]

Section 15. ADEC Notification Form

Fax this form to: (907) 269-4589 Telephone: (907) 269-8888

Pacific Energy Resources LTD

Company Name

Osprey Platform

Facility Name

Reason for notification:

☐ **Excess Emissions**

If you checked this box

Fill out section 1

☐ **Other Deviation from Permit Condition**

If you checked this box

fill out section 2

When did you discover the Excess Emissions or Other Deviation:

Date: __/__/__ Time:__:__

Section 1. Excess Emissions

(a) Event Information (Use 24-hour clock):

	START Time: (hr:min):	END Time:	Duration
Date: _____	_____	_____	_____
Date: _____	_____	_____	_____
		Total:	_____

(b) Cause of Event (Check all that apply):

☐ START UP

☐ UPSET CONDITION

☐ CONTROL EQUIPMENT

☐ SHUT DOWN

☐ SCHEDULED MAINTENANCE

☐ OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed
_____	_____	_____
_____	_____	_____

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

☐ YES ☐ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

☐ YES ☐ NO

Section 2. Other Permit Deviations

(a) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation
_____	_____
_____	_____
_____	_____

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____

Signature: _____

Date: _____

Alaska Department of Environmental Conservation

Air Permits Program

July 7, 2004

Pacific Energy Resources LTD

Osprey Platform

STATEMENT OF BASIS

of the terms and conditions for

Permit No. 696TVP01 Revision 1

Prepared by Tim Knapp

Prepared on January 7, 2008

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating/Construction Permit No. 696TVP01.

FACILITY IDENTIFICATION

Section 1 of Operating/Construction Permit No. 696TVP01 contains information on the facility as provided in the Title V permit application.

The facility is owned by Pacific Energy Alaska Operating LLC, operated by Pacific Energy Resources LTD and Pacific Energy Resources LTD is the Permittee for the facility's operating/construction permit. The SIC code for this facility is 1311.

The facility is an offshore oil and gas production platform located in Cook Inlet, Alaska. The site is now part of the West Forelands Facility for air quality permitting purposes. In addition to the Osprey, the West Forelands Facility consists of the Kustatan Production Site. Osprey was converted from exploration to production status upon startup of the Kustatan in the 4th quarter of 2002. Drilling operations at the facility have been electrified since June 2003, and operation of the diesel-fired drilling and support equipment is limited by requirements in AQC Construction Permit No. 696CP03. The diesel-fired drilling and support equipment remain on the platform, primarily for use during emergency well stabilization procedures in the event that electrical power is lost during drilling activities. The equipment consists of five large drilling engines, three standby generators, two crane engines, four boilers, a fire water pump, and a well test flare.

SOURCE INVENTORY AND DESCRIPTION

Table 1 of Operating/Construction Permit No. 696TVP01 contains information on the sources regulated by this permit as provided in the application. The table is provided for informational and identification purposes only. Specifically, the source rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

Section 2 of Operating/Construction Permit No. 696TVP01 contains emission information as provided in the Title V application. A summary of the potential to emit (PTE)⁹ and assessable PTE as indicated in the application from the Osprey Platform is shown in the table below.

⁹ *Potential to Emit or PTE* means the maximum quantity of a release of an air contaminant, considering a facility's physical or operational design, based on continual operation of all sources within the facility for 24 hours a day, 365 days a year, reduced by the effect of pollution control equipment and approved state or federal limitations on the capacity of the facility's sources or the facility to emit an air contaminant, including limitations such as restrictions on hours or rates of operation and type or amount of material combusted, stored, or processed as defined in AS 46.14.990(21), effective 1/18/97.

Table A - Emissions Summary, in Tons Per Year (TPY)

Pollutant	NO _x	CO	PM-10	SO ₂	VOC	Total
PTE	40	59	5.9	20	15	139.9
Assessable PTE	40	59	0	20	15	134

The assessable PTE listed under condition 1.1 is the sum of the emissions of each individual regulated air contaminant for which the facility has the potential to emit quantities greater than 10 TPY. The emissions listed in Table A are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit to the facility.

For criteria pollutants, emissions are as provided in the application.

BASIS FOR REQUIRING AN OPERATING PERMIT

Section 2 of Operating/Construction Permit No. 696TVP01 lists the regulatory classifications of the Osprey Platform.

This facility requires an operating permit under 18 AAC 50.325(b)(1) because it is part of the West Forelands facility and emits or has the potential to emit 100 tpy or more of a regulated air contaminant, 18 AAC 50.325(b)(3) because it is part of the West Forelands facility and contains a source subject to one or more of the standards adopted by reference in 18 AAC 50.040(a) – (c), and 18 AAC 50.325(c) because it is part of the West Forelands facility and is a facility described in 18 AAC 50.300 (b) – (e).

Alaska regulations require operating permit applications to include identification of “regulated sources.” As applied to Osprey Platform, the state regulations require a description of:

- ⇒ Each source regulated by a standard in 18 AAC 50.055, Industrial Processes and Fuel Burning Equipment, under 18 AAC 50.335(e)(4)(C);
- ⇒ Each source subject to a standard adopted by reference in 18 AAC 50.040 under 18 AAC 50.335(e)(2); and
- ⇒ Sources subject to requirements in an existing Department permit 18 AAC 50.335(e)(5).

The emission sources at Osprey Platform classified as “regulated sources” according to the above Department regulations are listed in Table 1 of Operating/Construction Permit No. 696TVP01.

CURRENT AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

No previous air quality control permit-to-operate exists for this facility.

Construction Permits

Construction Permit No. 696CP03-Revision 1 was issued to this facility on January 14, 2004. The facility-specific requirements established in this construction permit are included in the new operating permit as described in Table C.

Title V Operating Permit Application History

The owner or operator submitted an application on October 30, 2003.

The permit was revised on January 11, 2008 by administrative amendment to reflect the change in ownership from Forest Oil Corporation to Pacific Energy Alaska Operating LLC.

COMPLIANCE HISTORY

The facility has operated at its current location since 1999. Review of the permit files for this facility, which includes the past inspection reports indicate a facility generally operating in compliance with its operating permit.

FACILITY-SPECIFIC REQUIREMENTS CARRIED FORWARD

State of Alaska regulations in 18 AAC 50.350(d)(1)(D) require that an operating permit include each facility-specific requirement established in a permit issued under former 18 AAC 50.400 or in any other construction permit issued under 18 AAC 50. Table B below lists the requirements carried over from Construction Permit No. 696CP03-Revision 1 into Operating Permit No. 696TVP01.

Table B - Comparison of Permit No. 696CP03-Revision 1 Conditions to Operating Permit No. 696TVP01 Conditions¹⁰

Permit No. 696CP03- Revision 1 Condition number	Description of Requirement	Permit No. 696TVP01 Condition Number	How condition was revised
14	Submit quarterly facility operating reports...	52	No change
24.1.2.1.	Limit sulfur content to no more than 0.25% for liquid fuels burned by Source IDs 5 - 15	8	Reworded but with same content
24.1.2.2.	Limit H ₂ S content to no more	8	Reworded but with same

¹⁰ This 28.2 table does not include all standard and general conditions.

Permit No. 696CP03- Revision 1 Condition number	Description of Requirement	Permit No. 696TVP01 Condition Number	How condition was revised
	than 25 ppm for the gas burned by Source ID 16		content
24.1.2.3.	Limit the sulfur content of the fuels burned in Source IDs 1 – 4 to no more than 0.25% for liquids and 25 ppm for gases	8	Reworded but with same content
24.1.3.1.	Each Caterpillar D399 diesel-fired engine shall be equipped with a generator of 825 kW nameplate capacity or less	9	Reworded but with same content
24.1.3.2.	Each Caterpillar D379 diesel-fired engine shall be equipped with a generator of 350 kW nameplate capacity or less	9	Reworded but with same content
24.1.3.3.	Each Caterpillar D3412 diesel-fired engine shall be equipped with a generator of 545 kW nameplate capacity or less	9	Reworded but with same content
21.1.3.4.	If the generator nameplate capacity listed in conditions 24.1.3. exceed the listed value....	None	Documentation requirement already completed (not carried forward)
25	Place identification on each emission source....	7	Reworded but with same content
27.1	Limit the fuels burned by all sources, except Source IDs 1 – 4 and 16, to either #1 or #2 fuel oil	10	Reworded but with same content
27.2	Limit the fuel burned by Source ID 16 to pilot assisted and purge gases and flare gases	10	Reworded but with same content
27.3	Limit the gas flared by Source ID 16 to 260 MMscf per 12-month period	10	Reworded but with same content
27.4	Limit the fuel burned by Source ID 13 to 500 gallons per 12-month period	10	Reworded but with same content
28.1	Limit NO _x emissions to no greater than 229 tons per 12-month period. Limit fuel consumption for Source IDs 5 – 12, 14, and 15 in such a manner that....	None	Requirement has sunset date, no longer in effect
28.3.1.	Limit the total fuel burned by	10	Reworded but with same

Permit No. 696CP03- Revision 1 Condition number	Description of Requirement	Permit No. 696TVP01 Condition Number	How condition was revised
	Source IDs 5 – 10 to 7,500 gallons....		content
28.3.2.	Limit the total fuel burned by Source IDs 11 and 12 to 25,000 gallons....	10	Reworded but with same content
28.3.3.	Limit the total fuel burned by Source IDs 14 and 15 to 70,000 gallons....	10	Reworded but with same content
28.5.1.	Monitor and record monthly fuel consumption for Source IDs 5 – 9....	10.1	Reworded but with same content
28.5.2.	Monitor and record monthly fuel consumption for Source IDs 10 and 13....	10.1	Reworded but with same content
28.5.3.	Monitor and record monthly fuel consumption for Source IDs 11 and 12....	10.1	Reworded but with same content
28.5.4.	Monitor and record monthly fuel consumption for Source IDs 14 and 15....	10.1	Reworded but with same content
28.5.5.	Monitor and record monthly volume of gas flared by Source IDs 16....	10.1	Reworded but with same content
28.5.6.	Document liquid fuel flow meters and totalizers....	11.1	Reworded but with same content
28.6	For Sources....record the hours of operation....	11	Reworded for clarity as suggested in application
28.6.1.	For any of Source IDs 5 – 9 when the fuel meters are out of service, estimate....	11	Reworded but with same content
28.6.2.	For any of Source IDs 11 and 12 when the fuel meters are out of service, estimate....	11	Reworded but with same content
28.6.3.	For any of Source IDs 14 and 15 when the fuel meters are out of service, estimate....	11	Reworded but with same content
28.6.4.	For Source ID 10 when the fuel meters are out of service, estimate....	11	Reworded but with same content
28.6.5.	For Source ID 13 when the fuel meters are out of service, estimate....	11	Reworded but with same content

Permit No. 696CP03- Revision 1 Condition number	Description of Requirement	Permit No. 696TVP01 Condition Number	How condition was revised
28.6.6.	For Source ID 16 when the fuel meters are out of service, estimate....	11	Reworded for clarity as suggested in application
29.1	Report for each month, the volume of gas flared....	10.2	Reworded but with same content
29.2	Report the operating hours and estimated fuel consumption per month....	10.2	Reworded for clarity as suggested in application
29.3	Report the gallons of fuel oil consumed per month....	10.2	Reworded but with same content
29.4.	Report for each month the tons of NO _x	None	Condition dropped as unnecessary since fuel consumption is limited.
31.2.	Monitoring of operations, 40 CFR 60.116b....	None	Federal requirement in CFR has been rescinded
32	The Permittee shall not cause or allow visible emissions....	3	Reworded but with same content
33	The Permittee shall not cause or allow particulate emissions....	4	Reworded but with same content
34	The Permittee shall not cause or allow sulfur compound emissions....	5	Reworded but with same content
35.4	Measure the hydrogen sulfide content of fuel gas and flare....	5.5	Reworded but with same content
36.2.1.	Report the results of the fuel gas and flared gas hydrogen sulfide content....	5.7	Reworded but with same content
36.2.2.	Report the analytical results of distillate fuel oil sulfur content....	5.4	Reworded but with same content

PERMIT HYGIENE REQUEST EVALUATION

State of Alaska regulations in 18 AAC 50.310 allows for the revision or revocation of facility specific permit terms contained in Construction Permit No. 696CP03. Table C below contains the Permittee requested permit changes and the Departments response.

Table C – Evaluation of Revocation and Revision Request

Revocations and Revisions Requested			
Permit Condition	Summary	Basis	ADEC Response
25	Indicate source number on permitted equipment. Identifier must be at least four inches in height.	The Permittee believes that this condition does not represent an underlying applicable requirement, or MR&R for such a requirement. Therefore, it has no clear regulatory basis and creates an unnecessary compliance burden. The Permittee would be in compliance with all applicable requirements of the Clean Air Act, and the permit would contain all such requirements, and appropriate MR&R, without this condition. Further, several of the sources in the construction permit are insignificant, and others are unregulated.	This condition has been carried forward into the operating permit because proper identification of the facilities emission units is crucial for verification during inspections.
26	Authorization of source operation in construction permit.	The Permittee believes that this condition is unnecessary. The construction permit authorized the sources listed in it without this statement, and the operating permit does not need such a condition. The Permittee is unaware of any operating permits being issued with this language therefore it is clearly not required for the operating permit to authorize operation of equipment.	This condition has not been carried forward into the operating permit since it is unnecessary.
27.1&27.2	Indirect limitation of NO _x emissions through fuel type.	These conditions are unnecessary. The facility is already limited to No.1 or 2 distillate fuel by Condition 24.1.2. Further, as indicated by the condition, NO _x control is "indirect." NO _x emissions are directly controlled through operational limitations under Conditions 27.3, 27.4, and 28. As such, there is no need for this permit language.	These conditions have been carried forward into the operating permit. The fact that the operational restrictions are repeated twice in the construction permit does not make it wrong but instead twice correct. It appears in 24.1.2 as a requirement to protect ambient air quality increments and in 27.1 and 27.2 as part of a PSD avoidance strategy.
28.1&28.2	Temporary NO _x limits and fuel use limits for operation of facility following initial startup of Kustatan.	The temporary limitations under Conditions 28.1 and 28.2 are no longer necessary because the Kustatan facility has been in operation for more than 121 days, after which, the limits under Conditions 28.3.1, 28.3.2, and 28.3.3 apply.	These conditions have not been carried forward into the operating permit since they are no longer necessary.
28.5.6	Fuel flow meter and flared gas monitoring accuracy documentation.	The Permittee complied with this one-time only requirement. The condition was included in under Permit 0023-AC012 when total facility emissions were just below the 250 tpy PSD threshold. Under the current construction permit (and to be issued operating permit) facility NO _x emissions are only 40 tpy, well below the PSD threshold. Further, because vendor specifications are used as documentation, no on-going action by the permittee is needed.	This condition has not been carried forward into the final permit because it is a one time requirement and has been fulfilled.

Revocations and Revisions Requested			
Permit Condition	Summary	Basis	ADEC Response
29.4	Reporting of NOx emissions.	This reporting requirement is unnecessary because The Permittee has requested changes to Condition 28.3 (see Table 6-2) that eliminate the 20.6 tpy NOx limit. That limit appears to be modeled after the 229 tpy limit developed under Permit No. 0023-AC012, where the Permittee wanted the flexibility to pool the fuel use among the facility's diesel engines. However, this is no longer the case, and importantly, the pollutant limit is not needed because facility NOx emissions are limited through federally enforceable fuel use restrictions under conditions 28.3.1 – 28.3.3.	The condition has not been carried forward into the operating permit because the numerical limit for NOx is not relevant since it does not even represent all sources at the site. All the sources at the site are NOx limited indirectly via fuel usage limitations.
35 & 36	Monitoring and recordkeeping for 18 AAC 50.055 standards.	The Permittee requests that Conditions 35 and 36 be replaced with monitoring, recordkeeping and reporting requirements based on the ADEC's Standard permit conditions as indicated in Table 3-2. Note that Conditions 35.1 and 35.2 are one-time only requirements that have already been satisfied.	These conditions have been replaced by Standard Condition XI for SO ₂ emissions from oil-fired sources and a generic condition for gas-fired sources.
24.1.3.4	Requirements triggered if generators installed exceed nameplate capacities allowed by permit.	The Permittee requested that the ADEC revise the condition by deleting the following sentence in its entirety: "Documentation including vendor certification must be submitted to the Department for approval 30 days prior to startup of each source." This is a one-time only requirement that has already been satisfied.	This condition has not been carried forward into the operating permit because it is a one time requirement and has been fulfilled.
28.3	Source group NOx limit and fuel use limits.	The Permittee requests that the ADEC reword the condition by removing all reference to the 20.6 tpy NOx limit. The condition would simply provide narrative stating that Sources 5-12, 14 and 15 are subject to the fuel use limitations indicated in Conditions 28.3.1-28.3.3. The Permittee requests this change because the 20.6 tpy NOx limit appears to be modeled after the 229 tpy limit developed under Permit No. 0023-AC012, where the Permittee wanted the flexibility to pool the fuel use among the facility's diesel engines. However, this is no longer the case, and importantly, the pollutant limit is not needed because NOx emissions are limited through federally enforceable fuel use restrictions under Conditions 28.3.1 -28.3.3.	The condition has not been carried forward into the operating permit because the numerical limit for NOx is not relevant since it does not even represent all sources at the site. All the sources at the site are NOx limited indirectly via fuel usage limitations.
28.6	Alternative monitoring for periods when meters are out of service.	The Permittee requests that the condition be replaced with the following: For Sources-5-15, record the hours of operation whenever fuel metering/monitoring equipment is out of service. If fuel is metered as a group, record the hours of operation for each source whose fuel is monitored by the out-of-service meter. For Source 16, record the duration of each flaring event that occurs during periods when the flare gas volume meter is inoperative." The proposed revisions remove references to meter accuracy,	The suggested language change has not been adopted because documenting fuel consumption is not restricted to only those times arbitrarily defined as flaring events elsewhere in the permit and for other purposes (visible emission monitoring).

Revocations and Revisions Requested			
Permit Condition	Summary	Basis	ADEC Response
		and more appropriately handle flaring activity.	
28.6.6	Assumed flaring rate during periods when metering is inoperative.	The Permittee requests that the ADEC add the phrase "during each flaring event" to the end of the first sentence. Also, revise the condition to indicate that the standard cubic feet of fuel consumed will be determined from the "duration of the flaring event" rather than the "hours of operation." The Permittee feels the revisions are needed to clarify that the assumed flaring rate applies to flaring events that occur when the meter is out of service, not for any period when the meter is out of service.	The suggested language change has not been adopted because documenting fuel consumption is not restricted to only those times arbitrarily defined as flaring events elsewhere in the permit and for other purposes.
29.2	Reporting of hours and fuel use.	For clarification, the Permittee requests that the ADEC reword the condition to indicate that the operating hours and estimated fuel use is only required to be reported if a fuel meter or monitoring device is inoperative.	The suggested revision has been carried forward into the operating permit for clarity.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The state and federal regulations for each condition are cited in Operating/Construction Permit No. 696TVP01.

Conditions 1 - 2, Emission Fees

Applicability: The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are emissions of each air contaminant authorized by the permit (AS 46.14.250(h)(1)(A)). Air contaminant means any regulated air contaminant and any hazardous air contaminant. Therefore, assessable emissions under AS 46.14.250(h)(1)(A) means the **potential** to emit any air contaminant identified in the permit, including those not specifically limited by the permit. For example, hydrogen chloride (HCl) emissions from an incinerator are assessable emissions because they are a hazardous air contaminant, even if there is currently no emission limit on HCl for that class of incinerator.

The conditions also describe how the Permittee may calculate **actual** annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air contaminant. Therefore, fees based on actual emissions must also be paid on any contaminant emitted whether or not the permit contains any limitation of that contaminant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emission based on actual emissions use the most recent previous

calendar year's emissions. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match. The Permittee will normally pay for actual emissions - just with a one-year time lag.

Projected actual emissions may differ from the previous year's actual emissions if there is a change at the facility, such as changes in equipment or an emission rate from existing equipment.

If the Permittee does not choose to annually calculate assessable emissions, emissions fees will be based on "potential to emit" (PTE).

The PTE set forth in the condition is based on liquid fuel with a sulfur content of 0.13 percent by weight or fuel gas with a sulfur content of 25 ppm H₂S by volume. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the Permittee should reflect the actual sulfur content. The change in these values may result in SO₂ emissions that could trigger PSD.

Condition 3 and Section 6, Visible Emissions Standard

Applicability: This regulation applies to operation of all fuel-burning equipment in Alaska. Source ID(s) 1 - 16 are fuel-burning equipment.

Factual Basis: Condition 3 requires the Permittee to comply with the federal and the state visible emission standards applicable to fuel-burning equipment and incinerators. The Permittee shall not cause or allow the equipment to violate these standards.

This condition has recently been adopted into regulation as a standard condition. MR&R requirements are listed in Section 6 of the permit.

Gas Fired:

Monitoring – The monitoring of gas fired sources for visible emissions is waived, i.e. no source testing will be required. The Department has found that natural gas fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify that only gaseous fuels are used in the equipment.

Liquid Fired:

Monitoring – The visible emissions may be observed by either Method-9 or the Smoke/No Smoke plans as detailed in Section 6. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

Dual Fuel-Fired Sources:

For Source ID(s) 1 - 4, as long as they operate only on gas, monitoring consists of an annual certification that only gaseous fuels were used in the equipment. When any of these sources operates on a backup liquid fuel for more than 6,000 hours (Source IDs 1 and 2) or 8,000 hours (Source IDs 3 and 4) in a calendar year, monitoring as detailed in condition 12 is required for that source in accordance with recently issued Department Guidance AWQ 02-014 and an owner requested requirement. When any of these sources operates on a backup liquid fuel for less than 6,000 hours (Source IDs 1 and 2) or 8,000 hours (Source IDs 3 and 4) in a calendar year, monitoring for that source consists of an annual certification that these sources fired gas as a primary fuel. The operating hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Insignificant Sources:

For Source ID(s) 5 - 10 no visible emissions monitoring is required because these sources are insignificant sources based on actual emissions and have permit condition 10 that limit either their hours of operation or fuel consumption. For Source ID(s) 11 - 15 as long as they do not exceed the thresholds in condition 3.3 they are insignificant by emissions as specified in 18 AAC 50.335(r) and no monitoring is required in accordance with recently issued Department Guidance AWQ 02-014. The Permittee must annually certify compliance under condition 53 with the opacity standard.

Flares:

Monitoring for flares (Source ID 16 requires Method-9 observations of scheduled flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

Condition 4 and Section 6, Particulate Matter (PM) Standard

Applicability: The PM standard applies to operation of all fuel burning equipment in Alaska. Source ID(s) 1 - 16 are fuel-burning equipment. The SIP standard for PM applies to all fuel-burning equipment because it is contained in the federally approved SIP dated October 1983.

Factual Basis: Condition 4 requires the Permittee to comply with the state PM (also called grain loading) standard applicable to fuel-burning equipment. The Permittee shall not cause or allow fuel-burning equipment to violate this standard.

MR&R requirements are listed in Section 6 of the permit.

Gas Fired:

Monitoring – The monitoring of gas fired sources for particulate matter is waived, i.e. no source testing will be required. The Department has found that natural gas fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify that only gaseous fuels are used in the equipment.

Liquid Fired:

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed, 2) and results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

Dual Fuel-Fired Sources:

For Source ID(s) 1 - 4, as long as they operate only on gas, monitoring consists of an annual certification that only gaseous fuels were used in the equipment. When any of these sources operates on a backup liquid fuel for more than 6,000 hours (Source IDs 1 and 2) or 8,000 hours (Source IDs 3 and 4) in a calendar year, monitoring as detailed in condition 18 is required for that source in accordance with recently issued Department Guidance AWQ 02-014 and an owner requested requirement. When any of these sources operates on a backup liquid fuel for less than 6,000 hours (Source IDs 1 and 2) or 8,000 hours (Source IDs 3 and 4) in a calendar year, monitoring for that source consists of an annual certification that these sources fired gas as a primary fuel. The operating hours trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Insignificant Sources:

For Source ID(s) 5 - 10, no monitoring is required because these sources are insignificant sources based on actual emissions. Source ID(s) 5 - 10 must not exceed fuel consumption limit as required by condition 10. For Source ID(s) 11 - 15 as long as they operate within the thresholds in condition 4.3 they are considered insignificant sources by emissions as specified in 18 AAC 50.335(r) and no monitoring is required in accordance with recently issued Department Guidance AWQ 02-014. The Permittee must annually certify compliance under condition 53 with the particulate matter standard.

Flares:

Monitoring of gas fired flares for particulate matter is waived, i.e. no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The Department has recognized this fact by incorporating the waiver in the State Implementation Plan adopted in November 1984 which has not been federally approved. No recordkeeping or reporting is required.

Condition 5, Sulfur Compound Emissions

Applicability: The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska. Source ID(s) 1 - 16 are fuel-burning equipment. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October 1983.

Factual Basis: The condition requires the Permittee to comply with the sulfur compound emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g. diesel or No. 2 fuel oil). Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard. For fuels with a sulfur content higher than 0.75 percent, the condition requires the Permittee to use Section 14 to calculate the sulfur-dioxide concentration using the equations to show that the standard is not exceeded.

Fuel sulfur testing will verify compliance.

Fuel gas sulfur is measured as hydrogen sulfide (H_2S) concentration in ppm by volume (ppmv). Calculations¹¹ show that fuel gas containing no more than 4000 ppm H_2S will always comply with this emission standard. This is true for all fuel gases, even with no excess air.

Equations to calculate the exhaust gas SO_2 concentrations resulting from the combustion of fuel gas were not included in this permit. Fuel gas with an H_2S concentration of even 10 percent of 4000 ppm is currently not available in Alaska and is not projected to be available during the life of this permit.

Recordkeeping - For Diesel fuel the Permittee is required to record the fuel sulfur content or fuel grade of each shipment and all material balance calculations, and for fuel gas, the H_2S concentration of the fuel gas.

¹¹ See ADEC Air Permits Web Site at <http://www.state.ak.us/dec/dawq/aqm/newpermit.htm>, under "Stoichiometric Mass Balance Calculations of Exhaust Gas SO_2 Concentration."

Reporting – The Permittee is required to report as State excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee is required to include the material balance calculations for fuel oil in the excess emissions report.

The Permittee is required to include copies of the records mentioned in the previous paragraph with the facility operating report.

Condition 6, Hours of Operation Monitoring

Applicability and Factual Basis: The Permittee has requested reduced monitoring for visible emissions and particulate matter based on ADEC Policy Guidance AWQ 02-014. This guidance allows reduced monitoring for small emission sources under Topics 2 and 3 but does require monitoring and reporting of hours of operation to verify small emission source status.

Conditions 7 - 11, Construction Permit Requirements Carried Forward

Applicability and Factual Basis: The Construction Permit No. 696CP03 Revision 1 contained conditions that must be carried forward to this Title V operating permit. These conditions contain requirements that the Permittee must comply with and were derived from BACT analysis. The Permittee may not cause or allow their equipment to violate these limits.

Condition 7 requires the Permittee to label the equipment. Condition 8 contains fuel sulfur content limits to limit sulfur dioxide emissions. Condition 9 specifies maximum size of generators that can be attached to the diesel engines to limit emissions. Condition 10 contains fuel consumption limits to indirectly limit NO_x emissions. Condition 11 contains a procedure for calculating fuel consumption when metering is offline.

Conditions 12 - 20, (Section 6), Visible Emissions and PM Monitoring Plan

Applicability: Applies because these conditions detail the monitoring, recordkeeping, and reporting required in conditions 3 and 4.

Factual Basis: Each permit term and condition must include MR&R requirements showing verifiable compliance with each permit term and condition. The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Facility Operation and Maintenance Program that the facility is in continuous compliance with the State's emission standards for visible emissions and particulate matter. The correlation between particulate matter and visible emissions that is the basis for this monitoring procedure is discussed under conditions 3 and 4.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter standards for liquid and gas fired sources. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Monitoring frequencies for hydrocarbon fuels, both liquid and gaseous, are detailed in these conditions. The monitoring intervals for gaseous fuels are less frequent than for liquid fuels in recognition of the reduced propensity of gaseous fuels to produce particulate matter as a

result of combustion. This reduced level of monitoring for individual facilities in conjunction with the very large number of gas fired sources in Alaska should provide the Department with sufficient data to evaluate the compliance history of these sources as a category.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from sources either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Conditions 21, (Section 6), Visible Emissions MR&R Plan for Flares

Applicability: Applies because this condition details the monitoring, recordkeeping, and reporting required to demonstrate compliance with condition 3 for gas-fired flares.

Factual Basis: Condition 21 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas-fired flares normally burn without emitting visible emissions, but actual field data demonstrating this assumption is not available. However, gas-fired flares have been shown to smoke when a control device, i.e. a knockout drum, flare scrubber, gas or steam assist, or vapor recovery system malfunctions. Thus, the condition sets out a protocol to collect actual field data to determine compliance with the 20 percent opacity standard for flares.

A recent Department analysis of industry flaring operations indicates that 49 percent of the gas flared (by volume) is for pilot/purge, 25 percent is for flaring less than one hour, and 26 percent is for flaring that lasts more than one hour. Pilot/purge flaring constitutes half of all flaring by volume and is continuous in nature and can be observed at any time. This type of flaring has not caused violations of the opacity standard in the past and can be checked at any time by agency inspectors. The remaining half of the flaring volume is split evenly between less than and greater than one-hour duration. Therefore, the monitoring scheme in this condition addresses the half of the non-continuous flaring operations that are scheduled and for which a certified observer can reasonably be located onsite.

Since it is impractical to require facilities to have a certified Method-9 opacity reader on site for unpredictable emergency flaring, the monitoring protocol requires Method-9 readings only during scheduled flare events. Scheduled events such as those generated by maintenance activities and well testing of greater than one-hour in duration will be observed. These one-hour events are currently quantified and reported to the Alaska Oil and Gas Conservation Commission for other reasons and thus provides a confirming information record of the occurrence of these events. Only those events as defined in the condition need to be monitored. If no events meeting this definition occur during the life of the permit then no monitoring is required.

Since only flaring that is scheduled and exceeds one hour is required to be observed, operators will have time to provide certified Method-9 readers onsite. Most oil and gas production facilities in Alaska are located at remote sites, so it is not reasonable to self-monitor all or even a large sample of the flaring that occurs. Data collected from planned events will help the Department refine this monitoring scheme during future permit cycles. Process upsets and emergency events that may or may not exceed one hour occur randomly and do not lend themselves easily to periodic monitoring. At this time, the Department will rely on facility excess emission reports, citizen complaints, and agency inspections for information concerning these short term and emergency events.

Conditions 22 - 25, Insignificant Sources

Applicability: These general emission standards apply to all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual Basis: The conditions re-iterate the general standards and require compliance for insignificant sources. The Permittee may not cause or allow their equipment to violate these standards. Insignificant sources are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

The Department finds that the insignificant sources at this facility do not need specific monitoring, recordkeeping and reporting to ensure compliance under these conditions.

Condition 22 requires certification that the sources did not exceed state emission standards during the previous year and did not emit any prohibited air pollution. For Source ID(s) 11 - 15, as long as they do not exceed the thresholds of their hours of operation as stated in condition 3.3, they are considered insignificant sources and no monitoring is required in accordance with recently issued Department Guidance AWQ 02-014 #3 for standby sources.

State air quality regulations adopted effective May 3, 2002 allow for an average six minute opacity observation. The existing regulation, limiting opacity to no more than 20% for more than 3 minutes in any one hour, is included because EPA Region 10 has not formally approved the changed opacity regulation as part of Alaska's State Implementation Plan (SIP).

Condition 26, Asbestos NESHAP

Applicability: The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

Factual Basis: The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

Condition 27, Refrigerant Recycling and Disposal

Applicability: Applies if the Permittee engages in the recycling or disposal of certain refrigerants.

Factual Basis: The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F, that will apply if the Permittee uses certain refrigerants. Because these regulations include adequate

monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation.

Condition 28, Good Air Pollution Control Practice

Applicability: Applies to all sources, **except** NSPS regulated sources, i.e., except Source ID 17.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all sources.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 29, Dilution

Applicability: This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 30, Reasonable Precautions to Prevent Fugitive Dust

Applicability: Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the facility.

Factual Basis: The underlying regulation, 18 AAC 50.045(d), requires the Permittee to take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air.

Condition 31, Stack Injection

Applicability: Stack injection requirements apply to the facility because the facility contains a stack or source constructed or modified after November 1, 1982.

Factual Basis: The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific

monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 32, Open Burning

Applicability: The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the facility.

Factual Basis: The Permittee has agreed not to conduct open burning at the facility.

No specific monitoring is required for this condition. Annual compliance certification with this condition is sufficient monitoring.

Condition 33, Air Pollution Prohibited

Applicability: Air Pollution Prohibited requirements apply to the facility because the facility will have emissions.

Factual Basis: The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. While the other permit conditions and emissions limitation should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints and to submit copies of these records upon request of the Department.

The Department will determine whether the necessary actions were taken. No corrective actions are necessary if the complaint is frivolous or there is not a violation of 18 AAC 50.110, however this condition is intended to prevent the Permittee from prejudging that complaints are invalid.

Condition 34, Technology-Based Emission Standard

Applicability: Technology Based Emission Standard requirements apply to the facility because the facility contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other “technologically feasible” determinations.

Factual Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 50. Excess emission reporting under condition 50 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under condition 50.

Condition 35, Permit Renewal

Applicability: Applies if the Permittee intends to renew the permit.

Factual Basis: The Permittee is required to submit an application for permit renewal by the specific dates applicable to Osprey Platform as listed in this condition. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

Condition 36, Requested Source Tests

Applicability: Applies because this is a standard condition to be included in all permits.

Factual Basis: The Permittee is required to conduct source tests as requested by the Department. Monitoring consists of conducting the requested source test.

Conditions 37 - 39, Operating Conditions, Reference Test Methods, Excess Air Requirements

Applicability: Apply because the Permittee is required to conduct source tests by this permit.

Factual Basis: The Permittee is required to conduct source test as set out in conditions 37 through 39. These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with conditions 37 through 39 consist of the test reports required by condition 44.

Condition 40, Test Exemption

Applicability: Applies when the source exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 41 - 44, Test Deadline Extension, Test Plans, Notifications and Reports

Applicability: Apply because the Permittee is required to conduct source test by this permit.

Factual Basis: Standard conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. These standard conditions supplement specific monitoring requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

Condition 45, Particulate Matter (PM) Calculations

Applicability: Applies when the Permittee tests for compliance with the PM standard.

Factual Basis: The condition incorporates a regulatory requirement for PM source tests. The Permittee must use the equation given in this condition to calculate the PM emission concentration from the source test results. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 46, Certification

Applicability: This is a standard condition to be included in all permits. Applies because every permit requires the Permittee to submit reports.

Factual Basis: This condition requires the Permittee to certify all reports submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be **certified** with the facility report, even though it must still be **submitted** more frequently than the facility operating report. This condition supplements the reporting requirements of this permit.

Condition 47, Submittals

Applicability: Applies because the Permittee is required to send reports to the Department.

Factual Basis: This condition requires the Permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit.

Condition 48, Information Requests

Applicability: Applies to all Permittees, and incorporates a standard condition.

Factual Basis: This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information.

Condition 49, Recordkeeping Requirements

Applicability: Applies because the Permittee is required by the permit to keep records.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide an evidence of compliance with this requirement.

Condition 50, Excess Emission and Permit Deviation Reports

Applicability: Applies when the emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The reports themselves and the other monitoring records required under this permit provide monitoring of whether the Permittee has complied with the condition. Please note that there may be additional federally required excess emission reporting requirements.

Condition 51, NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS and NESHAP federal regulations.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61. The reports themselves provide monitoring for compliance with this condition.

Condition 52, Operating Reports

Applicability: Applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition.

Condition 53, Annual Compliance Certification

Applicability: Applies to all Permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. The reports themselves provide monitoring for compliance with this condition.

Conditions 54 - 60, Standard Conditions

Applicability: Applies because these are standard conditions to be included in all permits.

Factual Basis: These are standard conditions required for all operating permits.

Condition 61, Permit Shield

Applicability: Applies because the Permittee has requested a shield for the applicable requirements listed under this condition.

Factual Basis: Table 6 of Operating Permit No. 696TVP01 shows the permit shields that the Department granted to the Permittee. .